

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 – 12. (cancelled)

13. (currently amended) A power supply for a light emitting diode (LED) light source, comprising:

an LED power converter adapted to receive power from a power source and to generate an output power signal that can be applied to an LED light source having an effective operating lifetime and an effective light output; and

an LED power controller connected to the LED power converter and adapted to control the output power signal so that it compensates for degradations in the effective light output of the LED light source and ensures that light output by the LED light source when it is connected to the LED power converter remains relatively constant over the effective operating lifetime of the LED light source,

wherein the LED power converter is further adapted to:

receive a low frequency ac power signal;

convert the low frequency ac power signal into a dc power signal;

convert the dc power signal into a high frequency ac power signal; and

convert the high frequency ac power signal into the output power signal.

14 – 15. (cancelled)

16. (original) The power supply of claim 13, wherein the LED power controller is adapted to increase the output power signal by:

measuring an amount of time that the LED drive is connected to the LED light source;

comparing the measured time to a reference time; and

when the measured time exceeds the reference time, increasing the output power signal a predetermined percentage.

17. (original) The power supply of claim 16, wherein the LED power controller is adapted to measure the amount of time that the LED drive is connected to the LED light source by:

sensing when the LED light source is connected to the LED drive; and

activating a timing module when the controller senses that the LED light source has been connected to the LED drive.

18. (original) The power supply of claim 17, wherein the LED power controller is adapted to reset the timing module when the LED light source is replaced while the power source is supplying power to the LED drive.

19. (currently amended) A light emitting diode (LED) light source control system, comprising:

an LED current converter adapted to receive current from a current source and to generate a current signal that can be supplied to an LED light source having an effective operating lifetime and an effective light output, wherein the LED current converter is further adapted to generate a high frequency ac power signal and to convert the high frequency ac power signal into the current signal;

an LED light sensor adapted to receive light output by the LED light source and to generate a light signal based on the light output; and

an LED controller connected to the LED current converter and the LED light sensor, the LED controller adapted to adjust the current signal output by the LED power converter based on the light signal so that the current signal compensates for degradations in the effective light output of the LED light source and maintains the light output by the LED light source at a relatively constant level over the effective operating lifetime of the LED light source, wherein the LED controller further adapted to increase the current signal by increasing the frequency of the high frequency ac power signal.

20. (cancelled)

21. (original) The control system of claim 19, wherein the LED controller is adapted to stop increasing the current signal output by the LED current converter when the effective operating lifetime of the LED light source is exceeded.

22. (original) The control system of claim 19, wherein the LED controller is adapted to stop supplying the current signal to the LED light source when the effective operating lifetime of the LED light source is exceeded.

23. (original) The control system of claim 19, wherein
the LED current converter has a nominal output current signal; and
the LED controller is adapted to increase the current signal output to the LED light source a predetermined percentage of the nominal output current signal after LED light source has been operated for a predetermined number of hours.

24. (original) The control system of claim 19, wherein the LED controller is adapted to cause the LED current converter to stop outputting the current signal when the LED light source is disconnected from the LED drive.

25. (original) The control system of claim 19, wherein the LED controller is adapted to cause the LED current converter to:

stop outputting the current signal when the LED light source is disconnected from the LED drive; and

to automatically restart outputting the current signal when the LED light source is reconnected to the LED drive.

26 – 31. (cancelled)

32. (new) A power supply for a light emitting diode (LED) light source, comprising:

an LED power converter adapted to receive power from a power source and to generate an output power signal that can be applied to an LED light source having an effective operating lifetime and an effective light output; and

an LED power controller connected to the LED power converter and adapted to control the output power signal so that it compensates for degradations in the effective light output of the LED light source and ensures that light output by the LED light source when it is connected to the LED power converter remains relatively constant over the effective operating lifetime of the LED light source,

wherein the LED power converter is further adapted to:

receive a dc power signal;

convert the dc power signal into a high frequency ac power signal; and

convert the high frequency ac power signal into the output power signal.

33. (new) The power supply of claim 32, wherein the LED power controller is adapted to increase the output power signal by:

measuring an amount of time that the LED drive is connected to the LED light source;

comparing the measured time to a reference time; and

when the measured time exceeds the reference time, increasing the output power signal a predetermined percentage.

34. (new) The power supply of claim 33, wherein the LED power controller is adapted to measure the amount of time that the LED drive is connected to the LED light source by:

sensing when the LED light source is connected to the LED drive; and

activating a timing module when the controller senses that the LED light source has been connected to the LED drive.

35. (new) The power supply of claim 34, wherein the LED power controller is adapted to reset the timing module when the LED light source is replaced while the power source is supplying power to the LED drive.